

## **IN THE CLAIMS**

Please add new claim 16:

1. (Resubmitted) A method for automating integration of terminological information into a knowledge base, said method comprising the steps of:

receiving input terminology information comprising a plurality of input terms and information that specifies relationships among at least two of said input terms;

storing a knowledge base comprising a plurality of nodes, which represent terminology, arranged to depict relationships among said terminology;

parsing said input terminology information to generate a logical structure that depicts linguistic relationships among said input terms in a format compatible with said knowledge base;

determining whether at least one input term exists as a node in said knowledge base;

generating an independent ontology comprising said logical structure if none of said input terms exist as nodes in said knowledge base; and

extending said knowledge base logically coupling said logical structure to a node that matches an input term.

2. (Resubmitted) The method as set forth in claim 1, further comprising the steps of:

determining whether an input term that matches a terminological node in said knowledge base connotes a different meaning than said terminological node;

if so, then:

deleting said terminological node from its existing category – subcategory relationship;

logically coupling said parent in said category – subcategory relationship to form a new category – subcategory to form a new category – subcategory relationship; and

extending said knowledge base by logically coupling said input term to a node in said knowledge base.

3. (Resubmitted) The method as set forth in claim 1, wherein the step of receiving input terminology information comprises the step of receiving said terminology in an ISO 2788 format.

4. (Resubmitted) The method as set forth in claim 1, wherein:  
the step of receiving input terminology information comprises the step of receiving broader term and narrower term relationships among two input terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include parent – child relationships among categories related hierarchically; and

the step of parsing said input terminology information to generate a logical structure comprises the steps of generating a parent – child relationship between two terms comprising a broader term (BT) relationship in said input terminological information, and generating a child-parent relationship between two terms comprising a narrower term (NT) relationship in said input terminological information.

5. (Resubmitted) The method as set forth in claim 1, wherein:

the step of receiving input terminology information comprises the step of receiving synonym relationships between two terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include parent – child relationships among categories related hierarchically; and

the step of parsing said input terminology information to generate a logical structure comprises the steps of generating parent – child relationships between a common parent node in said knowledge base and said input terms specified as synonym relationships in said input terminological information.

6. (Resubmitted) The method as set forth in claim 1, wherein:

the step of receiving input terminology information comprises the step of receiving related term (RT) relationships among at least two input terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include cross reference (Xref) relationships among categories related; and

the step of parsing said input terminology information to generate a logical structure comprises the step of generating cross references between terms comprising a related term (RT) relationship in said input terminological information.

7. (Resubmitted) The method as set forth in claim 1, wherein:

the step of receiving input terminology information comprises the step of receiving preferred term (PT) relationships among at least two input terms;

the step of storing a knowledge base comprises the step of storing canonical/alternate form index that indexes a canonical form from one or more alternative form; and

the step of parsing said input terminology information to generate a logical structure comprises the step of generating canonical/alternate form index between terms comprising a preferred term (PT) relationship in said input terminological information.

8. (Resubmitted) A computer readable medium comprising a plurality of instructions, which when executed, causes the computer to perform the steps of:

receiving input terminology information comprising a plurality of input terms and information that specifies relationships among at least two of said input terms;

storing a knowledge base comprising a plurality of nodes, which represent terminology, arranged to depict relationships among said terminology;

parsing said input terminology information to generate a logical structure that depicts linguistic relationships among said input terms in a format compatible with said knowledge base;

determining whether at least one input term exists as a node in said knowledge base;

generating an independent ontology comprising said logical structure if none of said input terms exist as nodes in said knowledge base; and

extending said knowledge base logically coupling said logical structure to a node that matches an input term.

9. (Resubmitted) The computer readable medium as set forth in claim 8, further comprising the steps of:

determining whether an input term that matches a terminological node in said knowledge base connotes a different meaning than said terminological node;

if so, then:

deleting said terminological node from its existing category – subcategory relationship;

logically coupling said parent in said category – subcategory relationship to form a new category – subcategory to form a new category – subcategory relationship; and

extending said knowledge base by logically coupling said input term to a node in said knowledge base.

10. (Resubmitted) The computer readable medium as set forth in claim 8, wherein the step of receiving input terminology information comprises the step of receiving said terminology in an ISO 2788 format.

11. (Resubmitted) The computer readable medium as set forth in claim 8, wherein:

the step of receiving input terminology information comprises the step of receiving broader term and narrower term relationships among two input terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include parent – child relationships among categories related hierarchically; and

the step of parsing said input terminology information to generate a logical structure comprises the steps of generating a parent – child relationship between two terms comprising a broader term (BT) relationship in said input terminological

information, and generating a child-parent relationship between two terms comprising a narrower term (NT) relationship in said input terminological information.

12. (Resubmitted) The computer readable medium as set forth in claim 8, wherein:

the step of receiving input terminology information comprises the step of receiving synonym relationships between two terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include parent – child relationships among categories related hierarchically; and

the step of parsing said input terminology information to generate a logical structure comprises the steps of generating parent – child relationships between a common parent node in said knowledge base and said input terms specified as synonym relationships in said input terminological information.

13. (Resubmitted) The computer readable medium as set forth in claim 8, wherein:

the step of receiving input terminology information comprises the step of receiving related term (RT) relationships among at least two input terms;

the step of storing a knowledge base comprises the step of storing categories hierarchically arranged to include cross reference (Xref) relationships among categories related; and

the step of parsing said input terminology information to generate a logical structure comprises the step of generating cross references between terms comprising a related term (RT) relationship in said input terminological information.

14. (Resubmitted) The computer readable medium as set forth in claim 8, wherein:

the step of receiving input terminology information comprises the step of receiving preferred term (PT) relationships among at least two input terms;

the step of storing a knowledge base comprises the step of storing canonical/alternate form index that indexes a canonical form from one or more alternative form; and

the step of parsing said input terminology information to generate a logical structure comprises the step of generating canonical/alternate form index between terms comprising a preferred term (PT) relationship in said input terminological information.

15. (Resubmitted) A computer system comprising:

an input device for receiving input terminology information comprising a plurality of input terms and information that specifies relationships among at least two of said input terms;

memory for storing a knowledge base comprising a plurality of nodes, which represent terminology, arranged to depict relationships among said terminology;



processor unit, coupled to said memory and said input device for parsing said input terminology information to generate a logical structure that depicts linguistic relationships among said input terms in a format compatible with said knowledge base, for determining whether at least one input term exists as a node in said knowledge base, for generating an independent ontology comprising said logical structure if none of said input terms exist as nodes in said knowledge base, and for extending said knowledge base by logically coupling said logical structure to a node that matches an input term.

16. (New) A computer implemented method for automating integration of terminological information into a knowledge base, said method comprising the steps of:

receiving, into a computer, input terminology information comprising a plurality of input terms and information that specifies ontological relationships among at least two of said input terms;

storing, in said computer, a knowledge base comprising a plurality of ontologies, each one of said ontologies comprising a plurality of nodes hierarchically arranged to depict ontological relationships among said nodes, each node representing a term;

parsing said input terminology information to generate a logical structure that depicts ontological relationships among said input terms in a format compatible with said knowledge base;

determining whether at least one input term exists as a node in said knowledge base;

generating a new and independent ontology for said knowledge base comprising said logical structure of said ontological relationships if none of said input terms exist as nodes in said knowledge base; and

extending said knowledge base by storing data that logically couples said logical structure of said ontological relationships to a node that matches an input term.